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Amendments to the Claims:

Please amend claims 1, 4, 5, 9, 13, 17 and 19 as shown in the following listing of claims. This listing of claims will replace all prior versions, and listings, of claims in the application.

- 1 1. (currently amended) A method of correcting erroneous image signals
2 comprising:
3 providing a high signal and a low signal based on an image signal of a
4 previously processed pixel, said image signal of said previously processed pixel being
5 an image signal from a set of image signals that represents a single captured image of
6 a scene of interest of a captured image, said high signal and said low signal defining a
7 signal range about said image signal of said previously processed pixel; and
8 digitizing an analog signal of a current pixel using said high and low
9 signals as references to derive a digitized signal of said current pixel within said
10 signal range, including limiting said analog signal of said current pixel by said high
11 and low signals, said analog signal of said current pixel being another image signal
12 from said set of image signals of said captured image.
- 1 2. (original) The method of claim 1 further comprising a step of converting said
2 image signal of said previously processed pixel to said high signal and said low
3 signal.
- 1 3. (original) The method of claim 2 wherein said step of converting said image
2 signal of said previously processed pixel includes digital-to-analog converting said
3 image signal of said previously processed pixel to said high signal and said low
4 signal, wherein said high and low signals are voltages.
- 1 4. (currently amended) The method of claim 1 further comprising a step of
2 comparing said analog signal of said current pixel with an analog signal of a another
3 previously processed pixel, said analog signal of said another previously processed
4 pixel being another image signal from said set of image signals.

1 5. (currently amended) The method of claim 4 further comprising a step of
2 converting said image signal of said previously processed pixel to said high signal and
3 said low signal, wherein said high and low signals are dependent on said comparing
4 of said analog signal of said current pixel with said analog signal of said another
5 previously processed pixel.

1 6. (original) The method of claim 1 wherein said step of digitizing said analog
2 signal of said current pixel includes utilizing a flash analog-to-digital converter for
3 said digitizing.

1 7. (previously presented) The method of claim 1 further comprising a step of
2 adding a conversion signal to said digitized signal of said current pixel, said
3 conversion signal being a digitized image signal of said previously processed pixel.

1 8. (original) The method of claim 1 wherein said image signal of said previously
2 processed pixel is a digital signal, and wherein said image signal has more bits than
3 said digitized signal of said current pixel.

1 9. (currently amended) A system for correcting erroneous image signals
2 comprising:

3 means for outputting a high signal and a low signal based on an image
4 signal of a previously processed pixel, said image signal of said previously processed
5 pixel being an image signal from a set of image signals that represents a single
6 captured image of a scene of interest of a captured image, said high signal and said
7 low signal defining a signal range about said image signal of said previously
8 processed pixel; and

9 an analog-to-digital converter having a high reference input and a low
10 reference input to receive said high signal and said low signal, said analog-to-digital
11 converter being configured to digitize an analog signal of a current pixel using said
12 high and low signals as references to derive a digitized signal of said current pixel
13 within said signal range such that said analog signal of said current pixel is limited,
14 said analog signal of said current pixel being another image signal from said set of
15 image signals of said captured image.

1 10. (original) The system of claim 9 wherein said outputting means includes a
2 digital-to-analog converter to generate said high and low signals from said image
3 signal of said previously processed pixel.

1 11. (original) The system of claim 10 wherein said digital-to-analog converter is
2 configured to convert an input digital signal having more bits than said digitized
3 signal of said current pixel.

1 12. (previously presented) The system of claim 11 wherein said digital-to-analog
2 converter is a ten bit digital-to-analog converter, and wherein said an analog-to-digital
3 converter is a seven bit analog-to-digital converter.

1 13. (currently amended) The system of claim 10 wherein said outputting means
2 includes a comparator that outputs a comparison signal to said digital-to-analog
3 converter, said comparison signal being based on a comparison of said analog signal
4 of said current pixel with an analog signal of a another previously processed pixel,
5 said analog signal of said another previously processed pixel being another image
6 signal from said set of image signals, said high and low signals generated by said
7 digital-to-analog converter being dependent on said comparison.

1 14. (previously presented) The system of claim 13 wherein said digital-to-analog
2 converter is a ten bit digital-to-analog converter, and wherein said an analog-to-digital
3 converter is a six bit analog-to-digital converter.

1 15. (previously presented) The system of claim 9 further comprising a means for
2 adding a conversion signal to said digitized signal, said conversion signal being a
3 digitized image signal of said previously processed pixel.

1 16. (original) The system of claim 9 wherein said analog-to-digital converter is a
2 flash analog-to-digital converter.

1 17. (currently amended) A system for correcting erroneous image signals during
2 analog-to-digital conversion comprising:

3 a sensor array of photosensitive pixels, each of said photosensitive
4 pixels being configured to accumulate an analog image signal when exposed to light
5 to produce a set of analog image signals that represents a single captured image of a
6 scene of interest of a captured image; and

7 an analog-to-digital converter unit operatively coupled to said sensor
8 array to receive said set of analog image signals ~~of said captured scene~~ from said
9 photosensitive pixels, said analog-to-digital converter unit comprising:

10 a digital-to-analog converter that outputs a high signal and a low signal
11 based on a digital image signal of a previously processed photosensitive pixel, said
12 digital image signal of said previously processed pixel being an image signal derived
13 from said set of analog image signals of said captured image, said high signal and said
14 low signal defining a signal range about said digital image signal of said previously
15 processed pixel; and

16 an analog-to-digital converter having a high reference input and a low
17 reference input to receive said high signal and said low signal, said analog-to-digital
18 converter being configured to digitize an analog signal of a current photosensitive
19 pixel using said high and low signals as references to derive a digitized signal of said
20 current pixel within said signal range such that said analog signal of said current pixel
21 is limited, said analog signal of said current pixel being another image signal from
22 said set of analog image signals of said captured image.

1 18. (original) The system of claim 17 wherein said digital-to-analog converter is
2 configured to convert an input digital signal having more bits than said digitized
3 signal of said current pixel.

1 19. (currently amended) The system of claim 17 wherein an analog-to-digital
2 converter unit includes a comparator that outputs a comparison signal to said digital-
3 to-analog converter, said comparison signal being based on a comparison of said
4 analog signal of said current pixel with an analog signal of a another previously
5 processed pixel, said analog signal of said another previously processed pixel being
6 another image signal from said set of analog image signals, said high and low signals
7 being dependent on said comparison.

1 20. (original) The system of claim 17 further comprising a means for adding a
2 conversion signal to said digitized signal, said conversion signal being based on said
3 low signal.

1 21. (original) The system of claim 17 wherein said analog-to-digital converter is a
2 flash analog-to-digital converter.